

CAPACITY BUILDING OF LOCAL CONSULTANTS AND CONTRACTORS THE MOROGORO MODEL

by

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ABSTRACT

Since independence there have been number of initiatives geared towards fostering the local construction industry. Despite such interventions, the state of the local construction industry has remained poor. Performance constraints include inadequate capacity of local contractors and consultants, erratic work opportunities and poor state of the economy. Tanzania is now embarking on a long-term development strategy which aims at achieving sustainable human resources development.

The policy of the Swiss Agency for Development and Co-operation (SDC) in the Infrastructure and transport sector is in line with the Economic Recovery Program (ERP) target and fits into the framework of the Integrated Roads Project (IRP). The aspect of sustainability is one of the key criteria for designing and evaluating SDC development programmes. Therefore, special emphasis is on the promotion of private initiatives and local ownership.

The Swiss Government through SDC has been putting emphasis on local private sector promotion since years. A civil engineering contractors development programme; known as "The Contractor Involvement Component" (CIC), of the Morogoro Roads Support Project (MRSP), managed by the Supporting Agency (SA) ITECO Engineering Ltd was started in 1996 in Morogoro Region.

For building up capacity of local contractors formal training on road and bridge works including classroom sessions for management and field staff, practical training on demonstration sites and award of trial contracts, together with the formation of a Contractors Association as a future pressure group and promoter was seen as appropriate. The programme started with 28 contractors, and 13 only completed the programme successfully.

The contractors went through two cycles of training. The 13 winners gained confidence, which is the most positive result of CIC. They managed to stabilise their companies. Many of them also got jobs outside CIC, some of them even more than through trial contracts of the training programme. They employed more permanent staff and purchased at least some basic equipment. It shows that their outlook into the future is optimistic.

The promotion and capacity building of local consultants has been mainly through exposure within SDC financed projects of MRSP. This set up was considered to be

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adequate for the promotion and capacity building of local consultants. However, the reality was a bit different. As a matter of fact all consultants did not deliver works according to set standards, and the role of the SA being an advisor only made it at times difficult to initiate necessary changes and interventions in time.

SDC is ready to finance another mid to long-term promotion programme for local contractors and consultants in Tanzania, which started on July 1st, 2000 by using the Morogoro Model.

Further more the two professional associations, Tanzania Civil Engineering Contractors Association (TACECA) for contractors and The Association of Consulting Engineers Tanzania (ACET) for consultants, will be strengthened and take over the ownership of the programme. There is a commitment for a three years period by SDC for this programme, with an option for extension. Appropriate number of contracts for the training will be awarded to the consultants and contractors taking part in the programme. These contracts will be part of the yearly business plans of the Tanzania Roads Agency (TANROADS).

1. INTRODUCTION

In 1986 the United Republic of Tanzania launched the Economic Recovery Programme (ERP) to stimulate the ailing economy of the country. As an essential component of the ERP, the Integrated Roads Project (IRP) was launched in 1990 as a mid-term programme aimed at stabilisation and restoration of the road network.

Since independence there have been a number of initiatives geared towards fostering the local construction industry. Despite such interventions, the state of the local construction industry has remained poor. Performance constraints include inadequate capacity of local contractors and consultants, erratic work opportunities and poor state of the economy.

Tanzania is now embarking on a long-term development strategy which aims at achieving sustainable human resources development. The Construction Industry Policy (CIP) aims at establishing an enabling environment upon which sustained growth of the construction industry can be realised.

The economy of Tanzania undergoes a privatisation process; with increased outsourcing of works it is important for both the Government and the contractors and consultants that deficiencies in the performance are alleviated. Improved performance will result in better value of works for the Client and profitable business for contractors and consultants.

2. SDC PROJECT HISTORY SECTOR TRANSPORT AND INFRASTRUCTURE

The Swiss Agency for Development and Cupertino (SDC) provided financial and technical assistance for rehabilitation and maintenance of approximately 400 km of selected rural roads in the southern parts of the Morogoro Region of Tanzania since 1981 through the Kilombero and Ulanga Rural roads Project (KURRP).

In 1990 Swiss assistance was extended to Morogoro Rural District. The Morogoro Rural Roads Project (MRSP) Phase 1 was designed to provide a basis for future assistance with improvements to the infrastructure and organisational set-up of the Regional Engineer's Office and to undertake limited bridge and road trouble spots repairs in Morogoro Rural District.

Based on the above projects, the Morogoro Roads Support Project (MRSP Phase II) started in 1993 aiming at improvement of the regional road transportation system including institutional support to the Regional Engineer's Office (REO). In line with the policy of increasing contracting out of road works the development of local contractors in Morogoro Region was seen as being crucial to meet the requirement of availability of adequate number of capable contractors. That's why the Contractor Involvement Component (CIC) was newly introduced in MRSP III and continued during another year until June 2000 (MRSP Intermediate Phase). It included the formation of the Local Contractors Association Morogoro (MRCA) as a branch of TACECA and a training programme in labour and equipment based road and bridge works.

During this phase the training of local contractors shall be continued and extended to other regions. At the same time, a training programme for local consultants will be started in design and supervision of road and bridge works, and shall include classroom and field training.

3. PROMOTING AND BUILDING LOCAL CAPACITY

3.1 The SDC Approach

The policy of SDC in the Infrastructure and Transport Sector is in line with the ERP target and fits into the framework of IRP. The aspect of sustainability is one of the key criteria for designing and evaluating SDC development programmes. Therefore, special emphasis is on the promotion of private initiatives, participation and empowerment of communities and target groups, the establishment and strengthening of decentralised capacities, and local ownership. In our context, development of the private sector means enabling local consultants and contractors to do their job in a professional way and using their capacity.

3.2 Promotion of Local Contractors

For building up capacity of local contractors formal training including classroom sessions, practical training and award of trial contracts together with the formation of a Contractors Association as a future pressure group and promoter was seen as appropriate.

This approach was adopted first by the Contractor Involvement Component (CIC) of the Morogoro Roads Support Project (MRSP) Phase III, which started in 1996. Following were the goal and objectives of MRSP - CIC.

Project Goal

- Adequate number of capable contractors in Morogoro Region is available for road works

Project Objectives:

- A Regional Contractors' Association is formed and active;

- The competence, capacities and business footing of local contractors in Morogoro Region as well as the quality of works executed by local contractors is improved; and
- CIC trained contractors are gender sensitised.

3.2.1 The Regional Contractors Association Morogoro (MRCA)

The development of contractors can be accelerated if the contractors are organised in a suitable manner as to provide practical advice, expertise and information to contractors, to act as a strong body towards clients when negotiating e.g. general contract items or tender board rates for emergency works. The Regional Contractors Association Morogoro (MRCA) as a branch of TACECA was actually formed in June 97. Until today, 33 contractors in Morogoro region have joined the Association. This figure shows that there is will power to move forward.

However, MRCA showed typical signs of infancy and lack of traditions. At the beginning, there was no concept of strong and dedicated services for the members, a lack of democratic representation of the members' interest, little transparency and in general a low level of structure and strategy. In its outside links the branch showed a low profile and hardly any public relations.

That's why it was decided to employ a full time organisation development specialist (OD) as an adviser to the formal leadership body of the Association. The OD was actually employed by 1.1.2000.

The OCD assisted the TACECA Branch Executive Committee in Morogoro and the Head office in Dar to instil and maintain the following developments: -

- True democratic membership representation;
- Strong and attractive member services;
- Active participation of members;
- Transparency and accountability;
- Strong public relations;
- Formulation of strategy and operation plans;
- Professional management;
- Cohesion of branches and interchange of services across the branches; and
- Gender Mainstreaming of Contractors Association.

He was employed by TACECA and will be sponsored, for a limited period, by the SDC. He rotates also through other upcoming TACECA branches.

The active part of ITECO as a Supporting Agency (SA) in assisting and advising MRCA at the beginning was gradually reduced until the end of MRSP CIC (June 2000).

3.2.2 The Training of Local Contractors

3.2.2.1 Structuring of the Training

The Morogoro Training Model includes labour and equipment based training according to the type of works, each with three training phases, namely: -

- Training sessions in a classroom environment including lectures, group discussions, film and video demonstrations and practical assignments;

- Practical training for Gravel Road Works and Bituminous Road Works on a Demonstration Site organised and managed by the Training Consultant; and
- Trial Contracts awarded and managed by the REO, but works executed with guidance and assistance to the Contractors provided by the Training Consultant at the planning, tendering, mobilisation, construction and completion phases (on the job training).

Courses were held separately for managers/engineers and supervisors. The courses started in April 1997. The National Construction Council (NCC) was employed by the Supporting Agency (SA) to provide trainers (2-3) employed on a full time bases.

The first cycle of training with two trial contracts was implemented during MRSP Phase III. The second cycle came to an end by September 2000.

Table 1: CLASSROOM AND FIELD TRAINING

	Duration from to	Main topics
GRC Supervisors: Introduction Course	28.4-23.5.97	Road Construction and Maintenance, Construction Mathematics and computing Skills, Operations, Activities and Task Rates, Ministry of Works Standards and Technical Specifications, Surveying and Setting out, Site Planning and Organization, Measurements and Estimating, Site Supervision and Administration, Concrete and Masonry for drainage structures, Soil Mechanics, Gravelling Works, Tools and Equipment, Human Resources Management Planning and Works Scheduling.
Field Training on a Demonstration Site for GRC Supervisors	2.6-12.7.97	Labour Based Methods of Road Instruction
	28.7-6.9.97	Equipment Based Methods of Road Construction
GRC Managers	25.8-5.9.	Tendering Procedure, Road Construction and Maintenance, MoW Standard Specifications, Project Planning and Work Scheduling, Contract Administration, Environmental Issues, Pricing and Unit Rates Build up, Project Cost Control, Cash Flow Management and Procurement of Equipment and Materials.
GRC Supervisors (Advanced Course in equipment based methods)	14.7-25.7.	Road Construction and Maintenance by Equipment, Site Organisation and Administration, Planning and Work Scheduling, Tendering Procedures, Pricing and Unit Rates Build up, Preparation of Payment Certificates, Contract Supervision and Administration.
BRC Managers	20.10-31.10	Tendering Procedures, Bridge Construction and Maintenance, MoW Standard Specifications, Project Planning and Work Scheduling, Contract Administration, Pricing and Unit Rates Build up, Project Cost Control, and Cash Flow Management.
BRC Supervisors	15.9-10.10.	Road Network and Type of River Crossings in Morogoro, Interpretation of Technical Drawings, Bridge Construction and Maintenance, River Control Works, Site Planning and Organisation, Pricing and Rate Build-up, Planning and Work Scheduling and Contract Administration.
Briefing Seminar for Regional Engineers Staff	4.5-7.5.1998	Technical Specifications, Contracts, Supervision and Administration, Measurement and Pricing.
Bit RC Supervisors	7.9 – 24.9.98	Aggregates, General Road Repair, Surface Dressing, Asphalt Concrete, Asphalt Emulsion, Plant and Equipment, Laboratory Tests
Bit RC Managers	5.10 – 9.10.98	General Road Repair, Resource Management, Contracts Administration.
Field training on Demonstration Site for Bit RC Supervisors	December 98 – April 99	
Refresher Courses Managers BRC/GRC	1.2-3.2.99 22.2 –25.2.99	Communication, Financial Planning, Pricing, Claims Management.
Refresher Courses Supervisors GRC	8.2 – 12.2.99	Project Planning, Work Scheduling, Work Organisation, Preparation of Claims, Setting out Road Drainage, Road Engineering.
REO Road Inspectors Training	15.2/16.2.99	Measurement of Works
REO Management Staff	1.3.99	Claims Management
Bridge Works REO Road Inspectors	31.5 – 18.6	Bridge Inventory, Measurements, Inspection, Maintenance, Specifications, Supervision
Classroom Training incl. Field visits New supervisors GRC	26.7 – 17.8.	Road Construction/Maintenance, Mow Standard Specifications, Personnel Management, Surveying And Setting Out, Site Planning and Organization, Works Organization, Drainage Structures, Soil Mechanics, Gravelling Works
Demonstration site GRC New Supervisors GRC	11.10 – 17.11	Practical Training, Setting Out, Clearing, Road Formation, Gravelling, Drainage Works
Classroom Training Old and New Supervisors GRC	22.11 – 2.12	Site Organization/Administration, Pricing, Preparation Of IPC, Tendering, Works Scheduling, Contracts Administration
Classroom Training incl. Site visit New Managers GRC	6.12 – 17.12	Tendering, Human Resources Management, Standard Specification, Contract Administration, Environmental Issues, Pricing, Works Scheduling, Cost Control, Cash Flow Management.
Classroom Training incl. Site Visits BRC New Supervisors	11.1-28.1.00	Bridge Maintenance, Pricing and Rate Build up, Contracts Administration, Tendering Procedures, River Control Works, Concrete and Masonry Works, Setting out, work Planning and Scheduling, Accident and Safety Precaution, Site Planning and Organization, Reinforcement, Form-work and False work, MoW Technical Specifications for Bridge Works.
Classroom Training incl. Site visit New Managers BRC	21.2.00 – 3.3.00	River crossings Morogoro, Bridge Construction, Planning and Programming, MoW Standard Specifications, Tendering Procedures, Pricing and Rate Build up, Contract Administration, Project Cost Control, Cash flow Management

3.2.3 Access to Equipment

One of the key elements in road and bridge construction is the availability of equipment. Owning equipment is seen by most of the contractors as the most important element for the development of their enterprises.

As for the access to equipment, the idea of establishing a financing scheme on commercial basis for its purchase created big expectations among them.

However, a study done by a consultant (FACET EAST AFRICA, Facilitation of Equipment Procurement, September 1997, Pages 17, 23-27) showed the following:

1. A medium scale contractor needs to do business worth between TShs. 200 and 500 m a year to remain viable.
2. For the medium scale road contractors with a need for purchasing heavy equipment the purchasing cost would be several hundred million TShs. The business turn over does not allow them to service loans of such a magnitude.
3. For the small civil engineering contractor the basic equipment costs between Tsh. 50-65m. Given that the loan would have to be repaid within 5 years at commercial rates of interest the borrower would have to pay about TShs. 13m –17m a year, which is not possible with regard to the actual poor turn over of most of the contractors.
4. The Equipment Hiring Unit (EHU) at the Regional Engineer's Office Morogoro was set up to make basic equipment available to contractors. It is this unit that can be strengthened to continue to play this role. That's why with regard to:
 - the poor financial potential of the contractors;
 - the small volume of works that could actually be contracted out by the Ministry of Works as the main client; and
 - the actual availability of equipment on hire basis to contractors.

It was decided not to establish any financing scheme for purchasing of equipment and to leave it to the market forces.

3.2.4 Relaxed Conditions for Bidding

In order to promote small contractors some conditions for bidding were relaxed at the beginning as follows:

- Tender documents were free.
- No bid bond was required.
- In lieu of a security bond for advance payments evidence of assets such as title deeds and registration cards for vehicle were accepted by the client.

These relaxed conditions were dropped after the second cycle of training in order to expose the contractors to free market condition.

3.2.5 Financing

- Formal training (Classroom): was almost fully financed by the Government of Switzerland through SDC.
- Trial and Demonstration Site Contracts: Co- financed by GoT, 10% and SDC, 90%.
- Allowances for Trainees: were covered by the trained contractors.

The contracts for practical training prepared by the REO's office were part of the REO's road works programme.

3.2.6 Methodology for the Implementation of Trial Contracts

a) Award of Contracts

To allow for competition among the invited contractors, the following two approaches were chosen:

- The number of invited contractors was identical with the number of awarded contracts, but the contract sums differ. For each batch the invited contractors quoted for the total number of contracts. Award was done according to the overall ranking, with the biggest contract awarded to the best bidder.
- The number of invited contractors was bigger than the number of contracts to be awarded. The contractors ranked on top were awarded a contract, and the remaining contractors invited to tender again with the next following batch.
- The contractors were invited individually for negotiations. As these meetings were seen as part of the training, the trainers were also present. The contractors present the break down of their rates, and adjustments were done if necessary.

b) Execution of Contracts

Each contractor was awarded a first Trial Contract. During the execution of the works, the trainers visited regularly their sites and advised the contractors on technical and managerial matters. Besides there were formal site meetings with the client every 2 weeks. In addition to the above, the trainers ran a help desk for the contractors. The performance of the latter was assessed during the whole contract period. A final evaluation was also done as a basis for the selection of the contractors for another trial contract. Another evaluation form was filled in by the contractors after finishing of the works. It was used for identifying additional training inputs, getting information about the communication between contractor, client, and trainers, as well as experiences made on equipment hiring.

3.2.7. CIC Training Statistics for the Period July 1996 to June 2000

Table 2: CIC Training Statistics for the period July 1996 to June 2000 (* contractor went into big loss and failed)

	GRC	BRC	Bit RC	REO
Number of executed contracts	38	23	2	n.a.
Value of executed works	T.Shs 2,126 m	TShs 872 m	136 m	n.a.
Average Contract Sum	T.Shs 56 m	TShs 38 m	T.shs 68m	n.a.
Number of km rehabilitated /maintained	161 Increased Regravelling Spot Improvement	n.a.	136 Periodic Maintenance (pothole filling and resealing on most critical sections)	n.a.
Number of contractors At the beginning At the end	17 8	10 5	4 3	n.a.
CRB Classification of Contractors (Status: June 2000)	Class 1: - Class 2: 1 Class 3: 3 Class 4: - Class 5: 2 Class 6: 1 Class 7: 1	Class 1: - Class 2: - Class 3: - Class 4: 2 Class 5: 2 Class 6: 1 Class 7: -	Class 2: 1 Class 3: 1 Class 5: 1	
Number of trained management staff	22 (1 Female)	14	3	7(1 Fem.)
Number of trained supervisors	30	20	4	17
Number of trained female supervisors	4	1	-	1
Average cost/km of rehabilitated road	Kidatu-Ifakara 16m Kisaki Road 15.4 m Overall 13.2 m	-	1m	n.a.
Maximum cost/km of rehabilitated road	29.8m	n.a.	n.a.	n.a.
Minimum cost/km of rehabilitated road	4.4m (*)	n.a.	n.a.	n.a.
Course days classroom Managers	24	24	5	4
Course days classroom Supervisors	60	35	15	21
Demonstration sites (days)	102	-	Approx. 30(part time training)	
Financial loss caused to client EHU Contracted out works	15m 35m	- -	-	n.a.

3.2.8 Strength and Constraint

The promotion programme for local civil engineering contractors started in January 1997 and ended by end of September of this year.

The main achievements were:

- The establishment and strengthening of the Regional Contractors Association (MRCA) in Morogoro with to date 38 members.
- Training of civil engineering contractors enabling them to deliver road and bridge works that meet the set standards.

The programme started with 28 contractors, and finally 13 only ended the programme successfully. This shows that more attention should be paid in future to the selection of the training participants. Only potential survivors under free market conditions should be given a chance for attending such courses.

The 13 winners gained confidence, which is the most positive result of CIC. They managed to stabilise their companies. Many of them got also jobs outside CIC, some of them even more than through trial contracts of the training programme. They employed more permanent staff and purchased at least some basic equipment. It shows that their outlook into the future is optimistic. However, there are still many constraints to overcome. The equipment bottleneck is still there given the fact that EHU as the main provider cannot satisfy all the needs as regards quality and quantity of equipment needed, and the allocation of funds from the Government to civil engineering works has been too little and erratic to allow the contractors to survive in the long run. But it seems that contractors expect a change for the better from the road sector reform.

Another challenge is unfair competition. Local contractors have tendered for road works outside the region and experienced that colleagues with alarmingly low rates won tenders, which is detrimental to the construction industry. This problem needs to be tackled, e.g. by TACECA in order to establish fair competition.

TACECA as a growing professional association is on the right track to become a strong body towards clients and leader with authority to its members, and is then in a position to develop the construction industry for the benefit of all stakeholders.

3.2.9 Outreach

An external evaluation attested the MRSP CIC an outright success, and recommended implementing the Morogoro Model beyond the boundaries of Morogoro Regions.

At the same time ownership of the programme should be with TACECA.

Since 1.7.2001 the Morogoro Model has been managed by TACECA, and the role of the supporting Agency is to advise the Management. For the FY 2000/01 local civil engineering contractors are being trained along the Central Corridor in basic of gravel road works. 22 contractors from Dodoma, Singida, Shinyanga, Mwanza, Dar es Salaam and Morogoro Regions are involved. The training is partly financed by SDC (trainers) and TANROADS (physical works); administrative costs are covered by TACECA, and allowances for trainees by the trained firms themselves.

3.3 Promotion of Local Consultants

The promotion and capacity building of local consultants has been mainly through exposure within SDC financed projects of MRSP. Between July 1996 and June 2000 T.Shs 9.39 million was spent by the REO Morogoro on consulting services of local consultants, which is 9% of the value of the executed works. See also table on next page (Source: MRSP Half Yearly Reports, 1996 –2000).

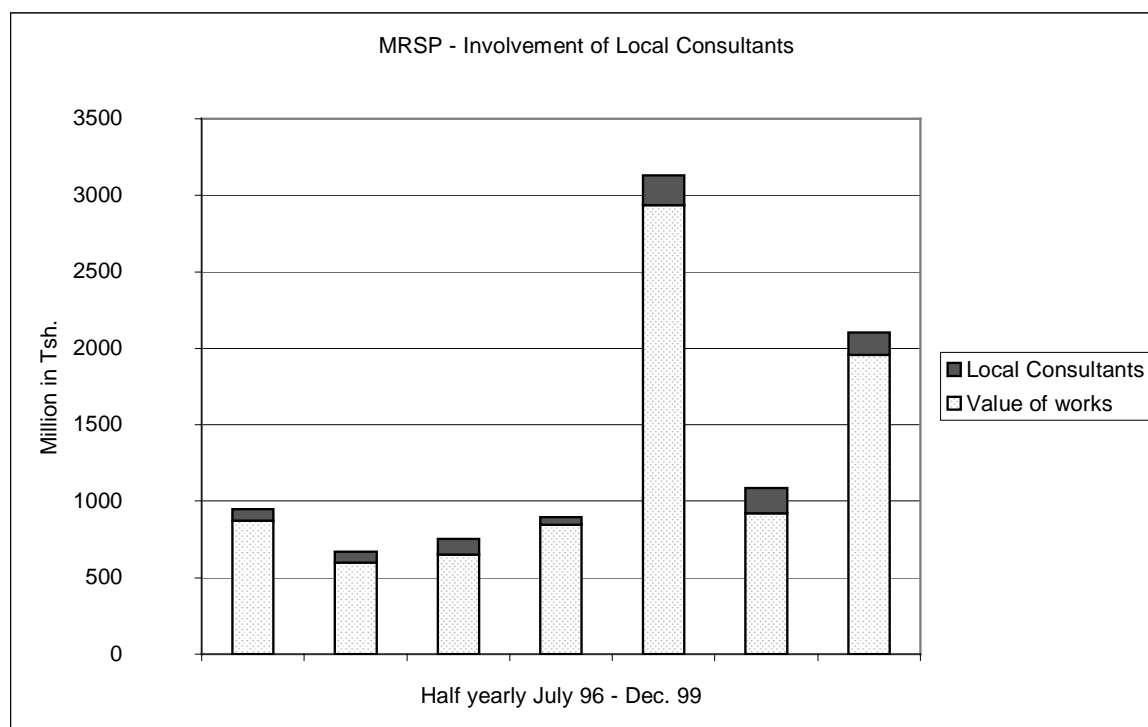
The overall percentage of outsourced works to local consultants in relation to the value of physical works executed shows that there is still potential for improvement. Quite a lot of design and supervision was still done in house by the REO staff, mainly for minor and emergency works. However, the most positive aspect of the figures in the table is, that the outsourced works to consultants were fully awarded to local consulting firms. The biggest project of T.shs 6 billion was the upgrading to bitumen standard of Mikumi – Kidatu Road, including several bridges. There was also a pilot project on using emulsion aggregate cold mix on Bigwa Road as an alternative to bitumen hot mix, a project also

designed and supervised by a local consultant. It shows that local capable consultants are available in this country and should therefore be given a fair chance.

But the impact of the SDC policy on the overall development of local consultants and contractors should not be overestimated since the released funds are minor compared to other donors, multilateral agencies and even the Government of Tanzania. Only about 2% of the annual disbursements by bilateral donors and multilateral agencies come from the Government of Switzerland. (Seco: Tanzania Swiss Country Programme 1999 – 2003, 1999, page 4).

Table 3: MRSP - Involvement of Local Consultants **42 in Million T. Sh.**

	2HY96	1HY97	2HY97	1HY98	2HY98	1HY99	2HY99	1HY 00	Total
Value of works	873.94	599.46	650.70	844.31	2,936.05	920.59	1,957.04	1,644.44	10,426.53
Local Consultants	74.45	70.89	102.79	52.15	193.70	164.09	46.56	23,809.52	24,614.16
percentage	8.52%	11.83%	15.80%	6.18%	6.60%	17.82%	7.49%	6.91	236.07%



3.3.1 The role of the Supporting Agency (SA) and the client

The role of the SA has been mainly the one of an advisor to the REO Morogoro since 1996 (MRSP III). Only a very limited number of short courses given by specialists on specific topics were conducted for consultants through MRSP. As for the procurement of consultants the REO fully assumes its role as a client for letting contracts and enforcing delivery of consultants' services within the specified schedule and set standards.

3.3.2 Training needs for consultants

The set up above was considered to be adequate for the promotion and capacity building of local consultants. However, the reality was a bit different. As a matter of fact, all consultants did not deliver works according to set standards, and the role of the SA being

an advisor only made it at times difficult to initiate necessary changes and interventions in time.

These constraints are well known and studies have been undertaken on how to tackle them. This refers to two studies conducted by a Canadian Consultant and M-Konsult with financial support from the World Bank (IDA) in 1996, and a recently finished assessment by a British training consultant on the same topic.

The envisaged training programmes cover business development and practice, computer aided design, environmental assessment, finance and accounting, project management, technical matters, and quality assurance. The long-term solution for financing such training appears to be a training levy. However, even before that, we have to look for other sources. The SDC approach is as follows:

For the intermediate need a less ambitious and tailor made training programme covering design and supervision of road and bridge works makes a lot of sense. The project goal of such a programme that started in July 2000 is as follows:

Adequate number of capable local consultants is available in Tanzania.

Project objectives are:

- The Association of Consulting Engineers Tanzania (ACET) representing the interests of a majority of local civil engineering consulting firms is strengthened, gender sensitive and active.
- The performance of local consultants in design and supervision of road and bridge works is improved.

In order to identify weaknesses to be addressed by training, a workshop (J.G. Mamiro: Report on Workshop on the Consultants Involvement in MRSP, March 2000, pages 4,5) with participants of all stakeholders of such a training programme was held, and areas where training is most needed were identified. These are (among others):

- Review of literature on design aspects (codes, standards)
- Site investigation for design purposes
- Personnel management
- Practical aspects on site management (recording, safety aspects, reporting, store keeping)
- Practical site supervision and quality control
- Technology transfer
- Preparation of Road/Bridge inventories
- Obligations of supervising engineer

The workshop further analysed the Civil Engineering Association (ACET) as the manager of the training. It was observed that some ACET deficiencies need to be mitigated, and the strength mainly of individual members used for the implementation of the training programme.

The training is focused mainly on the junior staff of local consultants. Inputs on higher level are being given through other programmes. The costs are borne partly by SDC, trained ACET firms, and TANROADS for physical works.

The programme also applies the Morogoro Model approach with classroom training and field training and consists of three modules:

Module I: Project Studies/Planning

Module II: Project Design

Module III: Project Supervision

3.4 Outlook and Recommendations

It goes without saying that this basic training can only be the beginning of a mid to long-term commitment by the stakeholders to foster the local construction industry. The guiding principles of this support are: -

- It has to be demanded driven
- The beneficiaries are to contribute financially
- Management of any training shall be with the respective professional associations TACECA and ACET
- There must be a commitment by TACECA and ACET for continued development of their members once the donor support will have come to an end.

The two packages together will contribute to promote the local construction industry in Tanzania, provided that

- The framework conditions for the local construction industry will change for the better.
- Potential clients and more donors are willing to use the capacity of local consulting firms.

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